BEFORE THE
PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO. 2009-3-E

In the Matter of Annual Review of Base Rates for Fuel Costs for Duke Energy Carolinas, LLC	)))))	**TESTIMONY OF** **VINCENT E. STROUD**

Q. PLEASE STATE YOUR NAME, ADDRESS, AND POSITION WITH DUKE ENERGY.

A. My name is Vincent E. Stroud, and my business address is 526 Church Street, Charlotte, North Carolina 28202. I am Vice President, Regulated Fuels for Duke Energy Corporation ("Duke Energy") and in that capacity I am responsible for all aspects of the purchase and delivery of fossil fuel that Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or the "Company") and the other Duke Energy regulated utilities use for the generation of electricity.

Q. STATE BRIEFLY YOUR EDUCATION, BUSINESS BACKGROUND, AND PROFESSIONAL AFFILIATIONS.

A. I am a graduate of the University of Houston, graduating in 1978 with a Bachelor of Science Degree in Civil Engineering Technology. I received a Master of Arts Degree in Business Administration from Tulane University in 1987. I also attended executive training courses at Wharton School of Business in 2001 and Xavier University in 2005. From 1982 to 1996, I worked for Mobil Oil Corporation in various energy-related engineering, production and marketing positions. From 1997 to August 2002, I served as the Vice President of Coal and Emissions Marketing for Aquila Energy Marketing, Inc. in Kansas City, Missouri. From September of 2002 to March of 2004, I was employed as Vice President of Coal Sales for Alliance Resources Partners, LLC in Tulsa, Oklahoma. In April of 2004, I joined Cinergy Services, Inc. (which was renamed Duke Energy Shared Services, Inc. and subsequently merged with Duke Energy Business Services, LLC as a result of the

merger of Cinergy Corp. ("Cinergy") and Duke Energy Corporation) as Vice President, Commercial Fuels, and moved into the position of Vice President, Regulated Fuels in January 2006. As a result of the merger of Cinergy and Duke Energy Corporation, I assumed my current position on April 3, 2006.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to furnish information relating to the Company's fossil fuel purchasing practices and costs for the review period June 2008 through May 2009, and describe changes forthcoming in the 2009 and 2010 forecast period. I will also address the limestone costs that are included in the proposed fuel factor in accordance with the South Carolina fuel cost recovery statute that allows for the inclusion of reagent costs.

Q. YOUR TESTIMONY INCLUDES FOUR EXHIBITS. WERE THESE EXHIBITS PREPARED BY YOU OR AT YOUR DIRECTION AND UNDER YOUR SUPERVISION?

A. Yes.

Q. PLEASE PROVIDE A DESCRIPTION OF THESE EXHIBITS.

A. The exhibits provide the following information:

Stroud Exhibit 1 – Fossil Fuel Procurement Practices

Stroud Exhibit 2 – Fossil Fuel Purchases and Consumption

Stroud Exhibit 3 – Comparison of Central Appalachia Market Coal Prices to Duke Energy Carolinas Average Coal Cost for the Review period and Projected Costs

Stroud Exhibit 4 – Fossil Fuel Inventories

Q. CAN YOU PROVIDE A SUMMARY OF DUKE ENERGY CAROLINAS' FOSSIL FUEL PROCUREMENT PRACTICES?

A. Yes. The Company continues to follow the same procurement practices that it has historically followed, which includes establishing appropriate inventory requirements; regular Request for Proposals ("RFPs") and bid evaluation; balancing long-term contract and spot purchases; staggering contract expirations; pursuing contract extension options; maintaining a well diversified coal supplier base; and actively monitoring supplier and railroad performance. A summary of those practices is set out in Stroud Exhibit 1.

Q. PLEASE DISCUSS THE COMPANY'S COST OF FOSSIL FUEL FOR THE REVIEW PERIOD.

A. A summary of Duke Energy Carolinas' costs as well as other statistical information for each fossil fuel category for the period June 2008 through May 2009 is set forth on Stroud Exhibit 2. This exhibit includes the quantities consumed, quantities purchased, and the weighted average purchase price for each fuel. Because several components make up the total cost of coal, coal statistics are broken down to show the average freight on board ("f.o.b.") mine cost, the transportation cost, and the delivered cost per million British thermal units ("BTUs").

The delivered cost per ton of coal increased approximately 26% from an average of $69.32 for the prior period (July 2007 to May 2008) to an average of $87.61 for the review period (June 2008 to May 2009). The average mine price per ton of coal increased approximately 39% from an average of $45.78 for the prior

period (July 2007 to May 2008) to an average of $63.64 for the review period (June 2008 to May 2009). Stroud Exhibit 3 illustrates that Duke Energy Carolinas' average coal cost during the review year and over time compares favorably to Central Appalachia coal market prices. The average transportation rate per ton of coal increased approximately 2% from an average of $23.54 for the prior period (July 2007 to May 2008) to an average of $23.98 for the review period (June 2008 to May 2009). This increase is the result of: (1) escalating fuel surcharges applied by the railroads as a result of a net increase in fuel oil prices during the period; and (2) contractual escalations for freight rates as provided for in the terms of the Rail Agreements. Transportation costs constituted 27% of the Company's total delivered cost of coal during the review period.

Despite extreme market volatility over the past eighteen months, these coal mine and transportation prices for 2008 and 2009 are within 1% of the prices projected in Duke Energy Carolinas' last fuel adjustment proceeding (Docket No. 2008-3-E) and used by the Company in developing the current approved fuel factor being billed for the October 2008 through September 2009 period.

The average oil cost for the June 2008 through May 2009 period decreased 20% to $2.17 per gallon compared to the previous review period ending May 2008. Average natural gas costs for the June 2008 through May 2009 period increased 72% to $13.39/MCF (thousand cubic feet) when compared to the previous review period ending May 2008. The significant increase in natural gas costs is a result of rapidly increasing energy prices during the review period. Oil and natural gas

combined accounted for only 4.5% of the Company's total fossil fuel costs during the review period.

Q. WHAT CHANGES DO YOU SEE IN COAL MARKET CONDITIONS FORTHCOMING IN 2009 AND 2010?

A. Since the fall of 2008, coal prices, along with other energy commodities, have fallen very steeply. By June 2009, Central Appalachian coal prices for 2009 delivery had fallen from their highs of the previous summer in the mid-$150s per ton, to the upper $40s per ton, with 2010 deliveries projected to be in the mid to upper $50s per ton. This extreme decline was due to deteriorating U.S. and world economic conditions, which reduced the demand for both steam and metallurgical coal. In particular, the strong export coal market of 2008 significantly eroded in the last eight to ten months, thereby causing even more coal to remain in the U.S. Additionally, declining natural gas prices, decreasing from approximately $13 per million BTUs in the summer of 2008 to less than $4 per million BTUs by the summer of 2009, have driven down coal prices, as gas generation has displaced coal generation in several areas of the country.

On the supply side, it was noted in last year's testimony that several problems existed in the world markets particularly in China and Australia. These supply problems were largely alleviated by late 2008 as China, the world's largest coal producer, increased their overall coal production by about 7% in 2008, as compared to 2007. During 2008, Eastern U.S. coal production increased by only 3%, as compared to 2007, even though domestic prices reached all-time highs. This lack of a significant supply response signifies that the supply of coal in the eastern

U.S. is largely inelastic, *i.e.*, higher market prices will not always lead to increasing rates of production. The primary reasons for this limited supply response are (1) the declining reserve base of Central Appalachia coals, (2) stringent and expensive environmental and safety regulations around mining coal, (3) the lengthy permitting requirements around coal production, and (4) very significant economic barriers to entry. Now that the demand and pricing for coal have fallen, several major coal producing companies have announced their intention to reduce production in 2009 in an effort to balance supply and demand. Reports in the industry press indicate that as much as 100 million tons of production will be idled in 2009.

In addition, it has been noted in prior years' testimony, that mining operating costs continue to have upward cost pressure due to growing demand for labor, declining mining productivity, and increased regulations for mine permitting and safety. These conditions have added to costs and led to diminished productivity. None of these issues appear to be resolved and they are likely to get much worse over the next several years. As a result, even though coal prices have declined dramatically since last fall, the escalation in production costs over the last two years have likely raised the floor for market prices in the years to come.

For the balance of 2009 and 2010, the Company expects coal production to be curtailed in response to the falling demand for coal and high utility inventories. The Company also expects much uncertainty for the demand for coal because of the current – and nearly unprecedented – instability of U.S. and world economic conditions. All of this leads the Company to anticipate continued coal pricing volatility over the next couple of years. Recent experience has shown that only

minor imbalances between market supply and demand can result in large changes in coal market prices.

Q. HOW DID THE COMPANY RESPOND TO THESE SIGNIFICANT MARKET CHANGES DURING THE REVIEW PERIOD?

A. The Company's average mine price for 2008 was $55.49 per ton in a market that ranged from $100 to $150 per ton for much of the year. Because of the uncertainty regarding future market supply and demand, the Company's 2008 goal was to ensure a reliable supply of coal throughout 2008 and 2009, without committing to a large percentage of supply for long-term at all-time high prices. By late 2008, Duke Energy Carolinas had greater than 95% of its anticipated 2009 coal needs contracted under firm prices, while 40% of anticipated coal needs for 2010 remained open to market prices.

The Company issued a Request for Proposals ("RFP") in January 2009 to address its anticipated coal supply needs for 2010 and beyond, because prices declined significantly over the last quarter of 2008 and in early 2009. The Company purchased most of its remaining 2010 coal needs from the January RFP at market prices in the mid to upper $60s per ton, and the Company projects a 4% increase in its average mine cost for the period October 2009 through September 2010 to approximately $66 per ton. Duke Energy Carolinas believed it was important to purchase coal at that time because the RFP results were close to the marginal cost of production and supply was being reduced. The projected mine price for this period is reasonable compared to the market price for Central Appalachian coal as shown on Stroud Exhibit 3.

The results of the RFP also indicated that Central Appalachia remained the most economical coal supply for Duke Energy Carolinas. In contrast, delivered, coal quality-adjusted prices from other basins are not competitive, due to their relative high market prices, additional transport expenses and higher logistical risks for delivering coal over longer routes, and coal quality issues associated with burning a type of coal that is not designed to accommodate Duke Energy Carolinas' generation units.

Because the demand for electricity has been lower than anticipated and has resulted in reduced coal consumption, coal inventories have increased well above target levels. The Company has been forced to amend contracts to reduce or defer contracted deliveries to prevent coal inventories from exceeding plant storage capacity. The Company continues to closely monitor its anticipated demand for coal and will make adjustments as necessary.

Q. DO THE COMPANY'S COAL PROCUREMENT PRACTICES DESCRIBED IN STROUD EXHIBIT 1 NEED TO CHANGE AS A RESULT OF THE CHANGES IN THE COAL MARKETS THAT YOU HAVE DISCUSSED?

A. No. The fundamentals of Duke Energy Carolinas' procurement practices are sound. Also, as I mentioned earlier, Duke Energy Carolinas will continue to explore alternative sources for obtaining coal.

Q. WHAT CHANGES DO YOU EXPECT IN THE COMPANY'S COST OF COAL IN 2009 AND 2010?

A. As stated previously in the testimony, Eastern coal prices have fluctuated wildly

over the past eighteen months. Unless electricity demand changes significantly, however, the Company anticipates stable prices for the forecast period because approximately 100% of projected needs have already been contracted. Based upon the contract prices for existing coal purchase commitments, it appears that the Company's average cost of coal will be approximately $66.10 per ton for the forecast period of October 2009 through September 2010.

Q. WHAT CHANGES DO YOU EXPECT IN THE COMPANY'S COST OF TRANSPORTATION IN 2009 AND 2010?

Duke Energy Carolinas maintains multi-year rail contract arrangements with the Norfolk Southern Railway Company ("NS") and CSX Transportation ("CSX") for delivery of coal. The Company is not aware of any significant changes in transportation costs forthcoming in 2009 and through the first six months of 2010 as compared to 2008 with the exception of the following: (1) fuel surcharges can vary because they are based upon changes in the price per barrel of oil; (2) rail contract rates increase for inflationary factors pursuant to the terms and conditions of the contracts; and (3) both contracts expire at the end of June 2010 and will be renegotiated prior to execution. The Company projects that its average cost of transportation will be approximately $22.60 per ton for the forecast period of October 2009 through September 2010.

Q. WHAT IS THE COMPANY PROJECTING THE COST OF COAL AND TRANSPORTATION TO BE FOR THE FORECAST PERIOD?

A. Adding the coal and transportation together, the Company is projecting average delivered coal costs to be approximately $88.70 per ton for the October 2009

through September 2010 forecast period.

Q. HOW DOES THE COMPANY INTEND TO MANAGE ITS COAL COSTS FOR THE FORECAST PERIOD?

A. Duke Energy Carolinas will continue to maintain a comprehensive coal procurement strategy, the success of which has been demonstrated over the last several years by limiting average annual coal price increases and maintaining average coal costs near or well below those seen in the marketplace. Although Duke Energy Carolinas' steam stations are designed to consume a typical Central Appalachia coal, the Company will continue to evaluate the options for coal supply delivered into the Carolinas from all U.S. and international sources. In addition, the Company will issue RFPs, as necessary to meet its anticipated requirements. The Company will continue to closely monitor the market on a daily basis by reviewing various market analyses, having frequent discussions with suppliers, and constantly monitoring published market prices.

Other aspects of this procurement strategy include (i) having the appropriate mix of contract and spot purchases, (ii) staggering contract expirations so that the Company is not faced with price changes for a significant percentage of purchases at any one time, and (iii) pursuing contract extension options that provide flexibility to extend terms within a set price collar.

The Company also controls costs by actively monitoring and rigorously enforcing supplier and railroad performance. The Company is currently engaged in litigation and arbitration regarding instances of supplier defaults in 2008 and 2009. An additional dispute with a producer may proceed to arbitration as a result of a

default during 2008.

Because the Company does not have coal delivery options other than rail, the future activities of the railroads and the Surface Transportation Board will continue to impact the level of service and cost of rail transportation experienced by the Company. As such, the Company supports legislative and regulatory efforts to promote competition, as well as to ensure reasonable rates in the railroad industry.

These are many of the initiatives Duke Energy Carolinas has undertaken and will continue to pursue to limit the Company's exposure to regional coal market price increases and help control and stabilize coal costs in general.

Q. PLEASE ELABORATE ON THE CHALLENGES AND OPPORTUNITIES ASSOCIATED WITH SOURCING COAL FROM REGIONS OTHER THAN CENTRAL APPALACHIA.

A. Sourcing coal from international sources has not been an economic alternative to domestic supplies for the past 18 to 24 months. The market price for South American coal delivered to east coast ports has been at least $10 to $15 per ton higher than domestic coal on a BTU adjusted basis. The Northern Appalachia markets experienced an extreme level of price volatility, similar to that observed in the Central Appalachia markets, over the past 18 months. And while Northern Appalachia market prices are now well below those of last year, the price of this coal supply is somewhat higher than the price of lower sulfur Central Appalachia coal. Thus, the cost of Northern Appalachia coal coupled with the additional transportation costs associated with much longer distances make new purchases of Northern Appalachia coal less economic than the Company's traditional sources of

supply. Notwithstanding these current conditions, the Company will continue to deliver significant volumes of higher sulfur dioxide ("SO_2") Northern Appalachian coal (leveraging below market agreements executed in prior years) to stations that utilize flue gas desulfurization equipment. Approximately 2,000,000 tons of high SO_2 Northern Appalachian will be delivered into the Carolinas in 2009, and another 1,500,000 tons will be delivered in 2010.

In November 2008, the Company took delivery of a train of Powder River Basin ("PRB") coal at Buck Steam Station in an effort to better understand the operational impact of PRB coal on units designed to burn Central Appalachian coal. Although PRB coal is not currently an economic alternative to Central Appalachian coal, the Powder River Basin is the largest coal producing region of the country and the Company believes it is important to be prepared to utilize this resource if at some point in the future the economics become favorable for PRB.

Although Duke Energy Carolinas continues to evaluate new sources of coal, operational issues caused by differing coal quality constituents (as compared to the coal quality for which the plants were originally designed) will cause the Company to continue to purchase the majority of its coal supply from the Central Appalachia region. The Company expects approximately 87% of its total coal supply to originate from Central Appalachia sources in 2009. The Company has developed a well-diversified Central Appalachia coal supplier base, as the largest single supplier is expected to represent approximately 26% of total coal purchases in 2009.

Q. PLEASE EXPLAIN THE COMPANY'S FUEL INVENTORY POSITIONS.

A. Stroud Exhibit 4 shows inventories for coal and oil at the beginning and end of this reporting period. Coal inventories increased from 2,720,440 tons as of May 31, 2008, to 4,424,938 tons as of May 31, 2009, which equates to 61 days of full load burn. This increase in inventory is primarily the result of a lower than forecasted demand for electricity amounts during the fourth quarter of 2008 and for the first half of 2009 as described previously in this testimony. The increase has brought the Company's current actual coal inventory level well above desired levels. As a result, the Company is taking the necessary steps to reduce inventory closer to the target level of 40 days of full load burn.

Oil inventories as of May 31, 2009, decreased approximately 6% as compared to the May 31, 2008 total.

Q. COMPANY WITNESS JOHN J. ROEBEL DISCUSSES THE COMPANY'S ENVIRONMENTAL CONTROLS EQUIPMENT AND THE USE OF REAGENTS IN THE OPERATION OF THE EQUIPMENT. IS THE REGULATED FUELS DEPARTMENT RESPONSIBLE FOR PROCUREMENT OF ANY OF THESE REAGENTS?

A. Yes. My department is responsible for purchasing and transportation logistics for limestone that is used in the operation of Duke Energy Carolinas' flue gas desulfurization equipment, which removes SO_2 from coal plant operations. There are many similarities between limestone and coal, thereby leading to the decision to group these bulk commodities within the same procurement function. Limestone, like coal, is delivered by rail and requires extensive logistics support to ensure proper delivery. The volume of limestone required varies based on the sulfur

content of coal. Therefore, close coordination and planning between the two commodities is required. Also, inventory management of limestone is very similar to coal, requiring frequent review of limestone use, deliveries and total inventory.

Q. WHAT COSTS FOR LIMESTONE ARE INCLUDED IN THE COMPANY'S PROPOSED FUEL FACTORS?

A. For the June 2009 through September 2010 period, limestone will be consumed at Marshall, Belews Creek, and Allen steam stations, and with Cliffside FGD likely to be on line near the end of the period. Projected use at each plant varies, but consumption will be approximately 52,600 tons per month over the June 2009 through September 2010 period. Limestone volumes will be increasing in future years as additional scrubbers are installed. Limestone supply has been secured from a central Virginia source under a long term supply contract that was competitively bid and entered into in 2004. Additionally, a multi-year rail contract with Norfolk Southern Railway has been established for Marshall, Belews Creek and Allen steam stations. Total limestone expenses are projected to be approximately $21.5 million for the June 2009 through September 2010 period.

Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes, it does.

Duke Energy Carolinas Fossil Fuel Procurement Practices

The Company's fossil fuel procurement practices are summarized below.

Coal

- Near and long-term consumption forecasts are computed based on factors such as: load projections, fleet maintenance and availability schedules, coal quality and cost, environmental permit and emissions considerations, wholesale energy imports and exports.
- Station and system inventory targets are determined and designed to provide: reliability, insulation from short-term market volatility, and sensitivity to evolving coal production and transportation conditions. Inventories are monitored continuously.
- On a continuous basis, existing purchase commitments are compared with consumption and inventory requirements to ascertain additional needs.
- All qualified suppliers are invited to make proposals to satisfy any additional or future contract needs.
- Contracts are awarded based on the lowest evaluated offer, considering factors such as price, quality, transportation, reliability and flexibility.
- Spot market solicitations are conducted on an on-going basis to supplement contract purchases.
- Delivered coal volume and quality are monitored against contract commitments. Coal and freight payments are calculated based on certified scale weights and coal quality analysis meeting ASTM standards. During the test period the Company utilized both destination and origin weights and analysis.

Natural Gas

- Near and long-term consumption forecasts are generated by the same system that produces coal estimates. Gas is burned exclusively in peaking assets – combustion turbines.
- Gas is not locally inventoried, but rather scheduled and delivered via pipeline on a daily basis. Oil is burned when gas is not economically available.
- In response to annual solicitation, suppliers submit proposals to provide bundled supply service to peaking facilities. This service consists of the commodity (gas), its transportation (pipeline), storage, and balancing services.
- Contracts are awarded based on the overall economic value offered, considering factors such as price, responsiveness, reliability, and best operational fit.

Fuel Oil

- Consumption forecasts are generated by the same system that produces coal estimates. No. 2 diesel is burned for initiation of coal combustion (light-off at steam plants) and in combustion turbines (peaking assets).
- All diesel fuel is moved via pipeline to terminals where it is then loaded on trucks for delivery into the Company's storage tanks. Because oil usage is highly variable, Duke relies on a combination of inventory and reliable suppliers who are responsive and can access multiple terminals. Diesel is replaced on an "as needed basis" as called for by station personnel with guidance from fuel procurement staff.
- Formal solicitation for supply is conducted annually. Contracts are awarded based on the lowest evaluated offer with special value on suppliers demonstrated ability to move large volumes of fuel with minimal notice.

DUKE ENERGY CAROLINAS
SOUTH CAROLINA FUEL CLAUSE
2009 ANNUAL FUEL FILING - July 2009
FUEL PURCHASES AND CONSUMPTION
JUNE 2008 - MAY 2009

COAL

Tons Burned	15,628,185
Tons Purchased	17,332,304
Avg. Mine Price/Ton	$63.64
Avg. Freight Price/Ton	$23.98
Avg. Delivered Price/Ton	$87.61
Avg. Delivered Price/MBTU	$3.6921

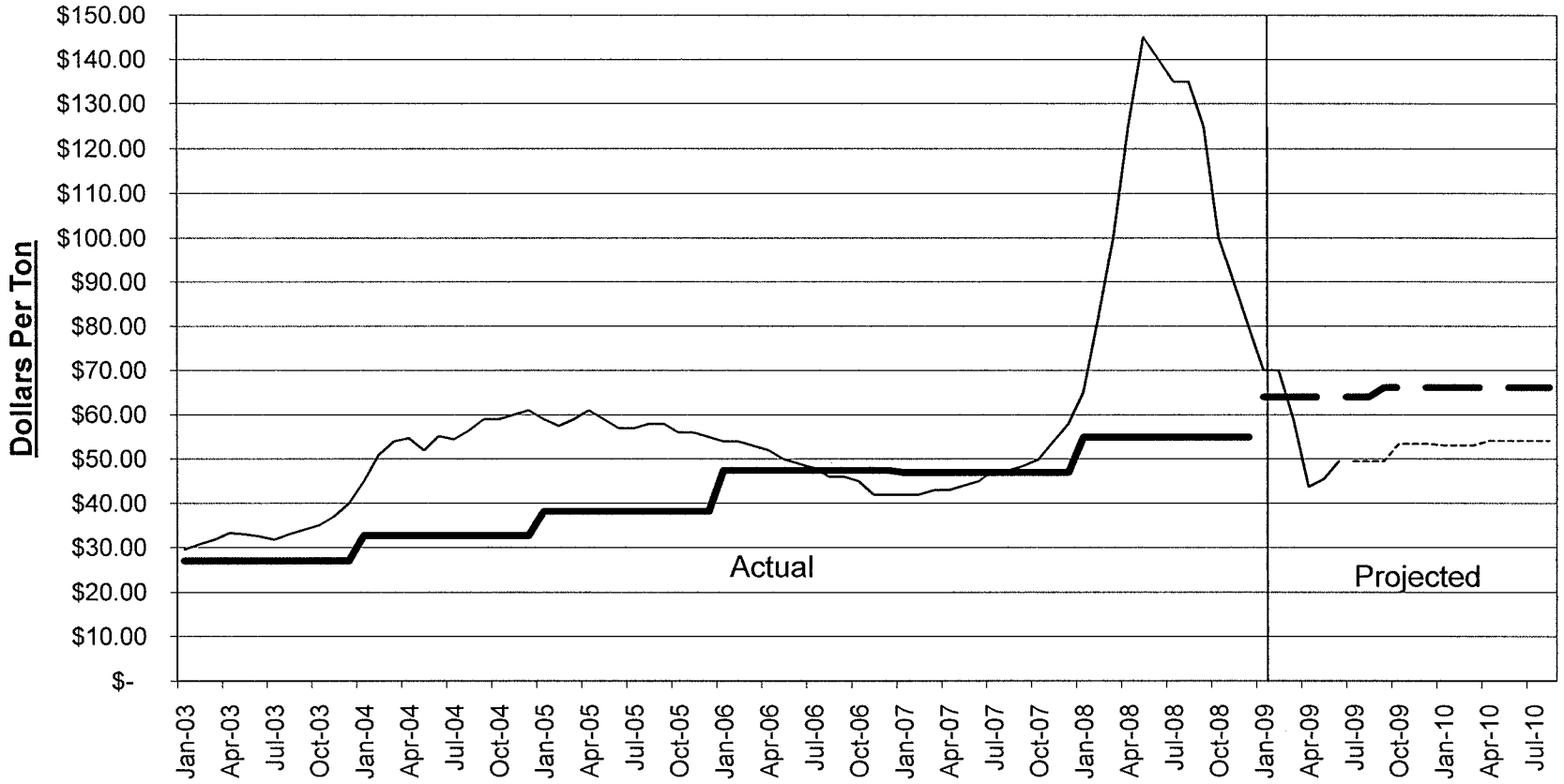
FUEL OIL

Gallons Consumed	7,325,342
Gallons Purchased	6,557,300
Avg. Price/Gallon Purchased	$2.1750

NATURAL GAS

Mcf Purchased	3,367,738
Avg. Price/Mcf.	$13.3865

Comparison of Central Appalachia Coal Market Prices to Duke Energy Carolinas Average Coal Mine Cost



Central Appalachia 12,500 Btu/lb 1% Sulfur Market Price

Projected Central Appalachia 12,500 Btu/lb 1% Sulfur Market Price

Duke Actual Annual Average Costs adjusted to 12,500 Btu/lb 1% Sulfur

Proposed Coal Mine Price as of February, 2009

STROUD EXHIBIT 3

DUKE ENERGY CAROLINAS
SOUTH CAROLINA FUEL CLAUSE
2009 ANNUAL FUEL FILING - July 2009
FUEL INVENTORY

	05/31/08	05/31/09
COAL (TONS)	2,720,440	4,424,938
#2 FUEL OIL (GALLONS)	20,233,494	19,042,048